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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,850	07/25/2001	Ikuo Aoki	1293.1228	3894

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EXAMINER	
ORTIZ CRIADO, JORGE L	
ART UNIT	**PAPER NUMBER**
2655	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,850	AOKI, IKUO	
	Examiner	Art Unit	
	Jorge L Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,6-16,18-22,24 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,6-16,18-22,24 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 3, 8-16, 18-22, 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoki, Japanese Publication No. 2000-195060.

Regarding claim 1, Aoki discloses an optical disc, comprising:

track grooves formed in a radial direction of the disc, with the disc being divided into a plurality of zones (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2),

wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, overlapped over recorded user data, to record zone address information for each of the divided zones based on a predetermined modulation rule, wherein each zone has a recording capacity in which an arbitrary recording capacity is added to a data recording capacity needed for each divided zone (See Detailed description paragraphs [007]-[008], [0013-[0015]; Drawings 1,2,5), and

wherein an arbitrary area at an inner and/or outer circumferences in each zone has a coupling area separate from a user data recording area (See Detailed description paragraphs

[0028]-[0030]; Drawings 5- "ID separate from the DATA" , in each m-1,m, and m+1 zones etc.), and

wherein, during recording of the user data, in each zone an arbitrary zone start pattern and/or zone end pattern is additionally recorded (See Detailed description paragraphs [0028]-[0030]; Drawings 5, "Address information of the zone")

Regarding claim 3, Aoki discloses wherein the coupling area has a predetermined pattern (See Detailed description paragraphs [0028]-[0030]; Drawings 5- "ID section separate from the DATA", in each m-1, m, and m+1 zones", predetermined information recorded in the ID section)

Regarding claim 8, Aoki discloses wherein the optical disc is a DVD-RAM disc (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Regarding claim 9, Aoki discloses wherein each zone has a plurality of sectors (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Regarding claim 10, Aoki discloses wherein each of the plurality of sectors has a sector address portion to store a corresponding sector address (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Regarding claim 11, Aoki discloses an optical disc, comprising:

a plurality of tracks formed in a spiral direction of the optical disc, each track having at least a groove portion (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2); and

a plurality of zones, each zone including a predetermined number of the plurality of tracks and an arbitrary area at an inner and/or outer circumference of each zone, separate from a user data recording area of each zone (See Detailed description paragraphs [007]-[008], [0013-[0015]; Drawings 1, 2, 5-"ID section separate from the DATA" , in each m-1,m, and m+1 zones etc.),

wherein the optical disc is formatted to include zone addresses for each zone by formatting a portion of the corresponding zone track grooves, in each zone, to include a wobble pattern based on a predetermined modulation rule, and wherein, during recording of user data, in each zone an arbitrary zone start pattern and/or zone end pattern is additionally recorded (See Detailed description paragraphs [007]-[008], [0013-[0015], [0028]-[0030]; Drawings 5, "Address information of the zone")

Regarding claim 12, Aoki discloses wherein each track further includes a land portion (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2)

Regarding claim 13, Aoki discloses wherein land and groove recording and reproduction is possible, respectively, to and from more than one spiral of the optical disc See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2)

Regarding claim 14, Aoki discloses wherein the optical disc is a DVD-RAM disc (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Regarding claim 15, Aoki discloses wherein each zone further includes a coupling areas, with the coupling area being in the inner and/or outer circumference of the corresponding zone (See Detailed description paragraphs [007]-[008], [0013-[0015]; Drawings 1, 2, 5-"ID section separate from the DATA", in each m-1, m, and m+1 zones etc.)

Regarding claim 16, Aoki discloses wherein a predetermined pattern is recorded in the coupling area, with the pattern being based on a recording or reproduction system to perform recording or reproduction, respectively, to or from the optical disc (See Detailed description paragraphs [007]-[008], [0013-[0015], [0028]-[0030]; Drawings 5, "Address information of the zone")

Regarding claim 18, wherein the predetermined modulation rule is one of an FM modulation, an AM modulation, and a PM modulation (Inherently to Aoki)

Regarding claim 19, Aoki discloses wherein the predetermined number of the plurality of tracks for each zone is based upon the data recording capacity needed for each zone plus an arbitrary recording capacity (See Detailed description paragraphs [007]-[008], [0013-[0015], [0028]-[0030]; Drawings 5-"Data Area plus ID area")

Regarding claim 20, Aoki discloses wherein the arbitrary recording capacity is a coupling area (See Detailed description paragraphs [007]-[008], [0013-[0015], [0028]-[0030]; Drawings 5-" ID area")

Regarding claim 21, Aoki discloses wherein each zone has a plurality of sectors (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Regarding claim 22, Aoki discloses wherein each of the plurality of sectors has a sector address portion to store a corresponding sector address (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Regarding claim 24, Aoki discloses a method of recording data on an optical disc, comprising:

dividing the optical disc into a plurality of zones; formatting a zone address portion of one of the zones to include a wobble pattern based on a predetermined modulation rule and corresponding to an address of the zone (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2),

recording user data in a user data portion of the zone; and recording a predetermined pattern in an additional coupling portion of the zone, after the recording of user data (See Detailed description paragraphs [007]-[008], [0013-[0015], [0028]-[0030]; Drawings 5-"Data Area plus ID area")

Regarding claim 25, Aoki discloses a method of recording data on an optical disc, comprising:

dividing the optical disc into a plurality of zones; formatting a zone address portion of one of the zones to include a wobble pattern based on a predetermined modulation rule and corresponding to an address of the zone (See Detailed description paragraphs [007]-[008], [0013]-[0015]; Drawings 1,2); and

recording user data in a user data portion of the zone, including recording of a zone start position, then recording of the user data, then recording of a zone end position (See Detailed description paragraphs [007]-[008], [0013-[0015], [0028]-[0030]; Drawings 5-"start zone area "m-1", then DATA area of zone "m-1" then end of zone m-1, then start of zone "m", then DATA area then end of zone "m", then start zone "m+1"...)

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki, Japanese Publication No. 2000-195060 in view of Maeda U.S. Patent No. 6,028,828.

Aoki discloses all the limitations based on claim 1 as outlined above. Aoki further discloses wherein, when data is recorded or reproduced at both sides of a land portion and a

groove portion formed by one of the track grooves (See Detailed description paragraphs [002]-[008], [0013-[0015]; Drawings 1,2,5)

Aoki does not expressly disclose the sequence in recording or reproduction of data in each zone is performed according to a following sequence: after recording or reproduction at a groove/land portion in each zone is completed, recording or reproduction at the land/groove portion is performed.

However, this feature is well known in the art as evidenced by Maeda, which discloses which discloses having a disk divided into a plurality of zones forming track grooves formed in a radial direction of the disc wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, overlapped over recorded user data, to record zone address information for each of the divided zones based on a predetermined modulation rule (See col. 3, lines 39-44; col. 8, line 63-to col. 9, line 25; col. 10, lines 36-42; Figs. 6,7,8,14) and wherein a sequence in recording or reproduction of data in each zone is performed according to a following sequence: after recording or reproduction at a groove/land portion in each zone is completed, recording or reproduction at the land/groove portion is performed (See col. 21, lines 8-26; Fig. 25)

It would have been obvious to one with ordinary skill in the art at the time of the invention to perform the sequence of recording/reproducing of data in each zone by after recording or reproduction at a groove/land portion in each zone is completed, recording or reproduction at the land/groove portion is performed, in order to avoid switching-over a groove to a land or a land to a groove and allow continuous recording/reproduction and saving the time taken for switching-over operation, as suggested by Maeda.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent No. 6,751,173 to Maeda, which discloses having a disk divided into a plurality of zones forming track grooves formed in a radial direction of the disc wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, overlapped over recorded user data, to record zone address information for each of the divided zones based on a predetermined modulation rule, wherein a sequence in recording or reproduction of data in each zone is performed according to a predetermined sequence.

Response to Arguments

4. Applicant's arguments filed 10/12/2004 have been fully considered but they are not persuasive.

In regard to claim 1, 11 and 24 Applicant argues that the English translation Aoki dos not teach or suggest overlapping zone address information to overlapped the user data. Also, that Aoki does not teach or suggest "an arbitrary recording capacity added to a data recording capacity needed to each divided zone, a coupling area, and a zone star patter or end pattern, wherein no coupling operation is performed", and wherein the added capacity of each zone is permitted to vary"

Applicant is reminded that, o**ffice personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure**. In re Morris, 127 F.3d 1048,

1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). **Limitations appearing in the specification but NOT recited in the claim are NOT read into the claim**. > E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily).< In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)

And, the examiner cannot concur with applicant arguments because, Aoki **clearly and explicitly** discloses as claimed wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, overlapped over recorded user data, to record zone address information for each of the divided zones based on a predetermined modulation rule ("i.e. wobbles") (See for example paragraphs [0007]; paragraphs [0014]-[0018] Drawing # 1.

Aoki as shown Drawing # 1 and as described in at least the cited portions, the disk is **divided** into a plurality of zones having an arbitrary recording capacity needed to each divided zone, **as claimed**, in other words the overall recording **capacity** of the disk has been divided and each of one of the plurality of the zones are formatted to have an arbitrary recording capacity. Furthermore, the examiner cannot find Where or How the capacity of the zone is permitted to vary, either as claimed or described in the specification, as argued. And it is apparently that also Applicant's invention each divided zone is formatted with a fixed capacity.

Aoki as claimed discloses wherein an arbitrary area at inner and/or outer circumferences in each zone has "**coupling area**" separate from a user data recording area, as claimed. As shown in Drawing # 5, each zone comprises an arbitrary area "ID part" which is separate from

the user data recording area "data part". Furthermore, this area as far as the examiner can tell is coupling each zone, and the examiner cannot find What or How exactly Applicants performs any "**coupling operation",** either as claimed or described in the specification.

Aoki as claimed and as described in for example paragraph [0029], discloses wherein during recording of the user data, in each zone an arbitrary "**zone start pattern" and/or "zone end pattern"** is additionally recorded, "**Zone Address Information**" for each zone is recorded and data/"patterns" are recorded identifying the beginning and/or end of each recorded zone.

In regard to claim 25, Aoki as claimed discloses dividing the optical disc into a plurality of zones; formatting a zone address portion of one of the zones to include a wobble pattern based on a predetermined modulation rule and corresponding to an address of the zone (See for example paragraphs [0007]; paragraphs [0014]-[0018] Drawing # 1,2; and

And , as shown in Drawing # 5, Aoki is recording user data in a user data portion of the zone, including recording of a zone start position, then recording of the user data, then recording of a zone end position, it is clearly shown this particular sequence in the Drawings 5-"start zone area "m-1", then DATA area of zone "m-1" then end of zone m-1, then start of zone "m", then DATA area then end of zone "m", then start zone "m+1" ...)

A human translation of the same document JP 2000-195060 of Aoki is being provided with this action. After more cursory review, both of the documents translations have been found to be consistent in the subject matter disclosed

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

joc

DAVID L. OMETZ
PRIMARY EXAMINER